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EXAMINER	
DEBROW, JAMES J	
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2176	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/705,915	JEON ET AL.	
	Examiner	Art Unit	
	James J. Debrow	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *26,28-56,58-70 and 72-80* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26,28-56,58-70 and 72-80* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/26/07; 7/26/07; 9/20/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Amendment filled 01 Oct. 2007.

2. Claims 26, 28-56, 58-70 and 72-80 are pending. Claims 26, 36, 46, 47, 58, 69 and 70 are independent claims.

Applicant's Response

3. In Applicant's response dated 01 Oct. 2007, Applicant amended claims 26, 28, 29, 31, 32, 35-42, 45-54, 56, 58-65, 68-70, 72-77, and 80; cancel claims 71 and 81-86; argued against all objections and rejection previously set forth in previous Office Action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. **Claims 26, 36, 46, 47, 58, 69 and 70** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner can not find the following claim recitation or suggestion thereof within the specification: *updates including the claimed combination of the upper structural element and the updated subset of the lower structural elements.*

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 26, 28-56, 58-70 and 72-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azami et al. (Pub. No.: 2003/0009472 A1; Filing Date: Jul. 9, 2001)(hereinafter "Azami") in view of Reed et al. (Patent No.: 6,088,717; Filed Aug. 31, 1998) (hereinafter 'Reed').**

In regards to independent claim 26, Azami disclose *a document management system, comprising:*

a document storage device configured to store at least one XML electronic document describing metadata related to broadcasting a plurality of television programs, the XML electronic document having a hierarchical structure comprising an upper structural element and a plurality of lower structural elements located below the upper structural element in the hierarchical structure to describe broadcast information and content information for each of the television programs (0004-0008; 0087-0092; 0097; 0211; Fig. 1; Fig. 25; Azami discloses a MPEG-7 description document which uses XML. The MPEG-7 description is divided into upper-rank structured metadata and

lower-rank structure metadata respectively. Azami further discloses division, store and transmission procedures of the audio-visual contents on a channel of digital television broadcast, which includes a computer which operates in accordance with a control program. Azami also disclose the upper-rank MPEG-7 description with a plurality of lower-ranks MPEG-7 descriptions, thus the XML electronic document having a hierarchical structure.).

a document receiving device coupled to the document storage device to receive updates to the XML electronic document, each of the received updates including the upper structural element and updated information for a subset of the plurality of lower structural elements, wherein each lower structural element in the subset has a respective version value (0004-0008; 0087-0092; 0097; 0107; Fig. 1; Fig. 25; Azami discloses receiving access units from the store system or the transmission system. Therefore Azami discloses a document receiving device coupled to the document storing device. Azami also discloses generally, there is a plurality of lower-ranked MPEG-7 description to be connected with an upper-ranked MPEG description stored in the Description of an access unit, thus the XML electronic document having a hierarchical structure. Azami further disclose a Fragment Location element which contains "attribute content". Using the broadest reasonable interpretation, the Examiner concludes the "content attribute" to be analogous to information within the electronic document, which could include but not be limited to the document version value.).

Azami does not disclose expressly *one of multiple versions of the XML electronic document according to the version values in the updates to the XML electronic document, wherein date information and time information of contents of the XML electronic document are used as the version value.*

However, Reed teaches *one of multiple versions of the XML electronic document according to the version values in the updates to the XML electronic document, wherein date information and time information of contents of the XML electronic document are used as the version value* (col.8, lines 12-14; col. 20, lines 17-29; col. 30, lines 52-55; col. 59, lines 47-67; Reed teaches multiple versions of objects instances may be maintained in the database so that the user can revert to previous data. Reed teaches a version value that is used to manage different versions of communication objects. The communication objects contain a combination of data, metadata and instructions. The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 28, Azami discloses structured metadata file description of a tree structured is separated or divided at an arbitrary position into upper-rank structure metadata and lower-rank structured metadata. Azami further discloses the upper-rank structure metadata and lower-rank structured metadata are connected and integrated into the original structured metadata (0087-0089).

Azami does not disclose expressly *the document management system of claim 26, wherein a version value is updated for one of the lower structural elements when content in that lower structural element of the XML electronic document is changed, and wherein the updated version value for that lower structural element is used as a corresponding version value for the upper structural element.*

However, Reed teaches *the document management system of claim 26, wherein a lower element version value is updated when content of the lower element of the XML electronic document is changed, and wherein the updated lower element version value is used as a corresponding upper element version value* (col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the

communication object is changed. Thus, when an element is updated/changed, the version value changes.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 29, Azami does not disclose expressly *the document management system of claim 26, wherein each version value includes date and time information according to when said contents of the corresponding element was updated.*

However, Reed teaches *each element version value includes date and time information according to when said contents of the corresponding element was updated* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 30, Azami discloses *the document management system of claim 26, wherein the document receiving device is configured to request the XML documents* (0004-0008; 0087-0092; Fig. 1; Fig. 25; Azami discloses receiving access units from the store system or the transmission system.).

In regards to dependent claim 31, Azami does not disclose expressly *the document management system of claim 29,wherein each version value includes date and time information when contents of the corresponding element was changed.*

However, Reed teaches *each version value includes date and time information when contents of the corresponding element was changed* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 32, Azami discloses *the document management system of claim 28, wherein a type of the content of the lower element is included in the version value of the upper structural element* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata. Thus the type of the content of the lower element is included in the upper element version value.).

In regards to dependent claim 33, Azami discloses *the document management system of claim 26, wherein version information of said contents is defined by a syntax of said electronic document* (0004-0006; 0093).

In regards to dependent claim 34, Azami discloses *the document management system of claim 33, wherein said syntax is XML schema* (0004-0006; Azami discloses an XML schema.).

In regards to dependent claim 35, Azami discloses *the document management system of claim 34, wherein said contents includes at least one member from the group*

of title, synopsis, review, and casting for each television program (0199; Azami discloses structured metadata representing an electronic program guide including, which includes broadcasting programs titles, broadcasting dates, broadcasting channels and broadcasting programs outlines.).

In regards to independent claim 36, Azami discloses *method implemented by an apparatus for updating a portion of an electronic document describing metadata related to broadcasting a plurality of television programs, the electronic document and having a hierarchical structure that includes an upper structural element and a plurality of lower structural elements located below the upper structural element in the hierarchical structure to describe broadcast information and content information for each of the television programs, wherein each element is based on XML and stored in a client, the method comprising* (0004-0008; 0087-0092; 0097; 0211; Fig. 1; Fig. 25; Azami discloses a MPEG-7 description document which uses XML. The MPEG-7 description is divided into upper-rank structured metadata and lower-rank structure metadata respectively. Azami further discloses division, store and transmission procedures of the audio-visual contents on a channel of digital television broadcast, which includes a computer which operates in accordance with a control program. Azami also disclose the upper-rank MPEG-7 description with a plurality of lower-ranks MPEG-7 descriptions, thus the XML electronic document having a hierarchical structure.):

requesting an updated version of a subset of said lower structural elements of the electronic document describing metadata, wherein the subset is related to one or

more of the television programs scheduled for broadcast (0188-0192; Azami discloses a user-side computer can access arbitrary one among the MPEG-7 access units in the video database. The database holds a plurality of video content and MPEG-7 descriptions corresponding the video contents respectively. Using the broadest interpretation, the Examiner concludes that the requested video-segment information downloaded to the user-side computer is an updated version of the video-segment information/metadata.).

updating said subset of the lower structural elements stored in said client with said received updated version of said subset of the lower structural elements without replacing the electronic document in its entirety (0150, lines 1-4; 0203-0205 Azami discloses the upper-rank information and the lower-ranked information can be transmitted separately. Therefore Azami teaches the concept of receiving updated version of said element and without replacing the electronic document in its entirety.).

Azami does not disclose expressly *receiving an update to the electronic document in response to the request, the received update including the upper structural element and said updated version of said subset of the lower structural elements, wherein said updated version is identified by an element identification including an element version, wherein said element version comprises date information and/or time information;*

Reed teaches *receiving an update to the electronic document in response to the request, the received update including the upper structural element and said updated*

version of said subset of the lower structural elements, wherein said updated version is identified by an element identification including an element version, wherein said element version comprises date information and/or time information (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 37, Azami does not disclose expressly *the method of claim 36, wherein said element version includes date and time information according to when contents in the subset of the lower structural elements were updated.*

Reed teaches *element version includes date and time information according to when contents in the subset of the lower structural element were updated* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is

determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 38, Azami does not disclose expressly *the method of claim 37, wherein said element version and time information according to when said contents in the subset of the lower structural element were changed.*

Reed teaches *element version and time information according to when said contents in the subset of the lower structural element were changed* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 39, Azami does not expressly disclose *the method of claim 36, wherein said requesting comprises transmitting a current version of said subset of the lower structural elements, and wherein said element version of said received updated version is later than an element version of said current version.*

However, Reed teaches *transmitting a current version of said subset of the lower structural elements, and wherein said element version of said received updated version is later than an element version of said current version* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. It has been established and is well known in the art that an updated element version is typically later than an element version of the current version).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 40, Azami discloses *method of claim 36, wherein when said subset of the lower structural structure of said elements is changed, a version value for each of the lower structural elements structure is updated and the updated version value is reflected in a version value of said upper structural element structure* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata, thus the lower-ranked structure updated version value is reflected in a version value of said upper structure.).

In regards to dependent claim 41, Azami discloses *the method of claim 40, wherein a largest value among the version values for the lower structural elements is used as the version value of the upper structural element* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata. Thus the type of the content of the lower element is included in the upper element version value, as well as the largest value of the version values of the lower structures).

In regards to dependent claim 42, Azami discloses the *method of claim 41, wherein a type of at least one of the updated lower structural elements is included in the version value of the upper structural element* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into

the original structured metadata. Thus the type of the content of the lower element is included in the upper element version value.).

In regards to dependent claim 43, Azami discloses *the method of claim 37, wherein said element version of said contents is defined by a syntax of said electronic document* (0004-0006; 0093).

In regards to dependent claim 44, Azami discloses *the method of claim 43, wherein said syntax is XML schema* (0004-0006; Azami discloses an XML schema.).

In regards to dependent claim 45, Azami discloses *the method of claim 44, wherein said contents includes at least one member from the group of title, synopsis, review, and casting of the one or more television program* (0199; Azami discloses structured metadata representing an electronic program guide including, which includes broadcasting programs titles, broadcasting dates, broadcasting channels and broadcasting programs outlines.).

In regards to independent claim 46, Azami discloses *for a method implemented by an apparatus for updating a portion of an electronic document describing metadata related to broadcasting a plurality of television programs, the electronic document having a hierarchical structure that includes an upper structural element and a plurality of lower structural elements located below the upper structural*

element in the hierarchical structure to describe broadcast information and content information for each of the television programs, wherein each element is based on XML and, stored in a client, the method comprising (0004-0008; 0087-0092; 0097; 0211; Fig. 1; Fig. 25; Azami discloses a MPEG-7 description document which uses XML. The MPEG-7 description is divided into upper-rank structured metadata and lower-rank structure metadata respectively. Azami further discloses division, store and transmission procedures of the audio-visual contents on a channel of digital television broadcast, which includes a computer which operates in accordance with a control program. Azami also disclose the upper-rank MPEG-7 description with a plurality of lower-ranks MPEG-7 descriptions, thus the XML electronic document having a hierarchical structure.):

requesting from a provider an updated version of a subset of said lower structural elements of the electronic document describing metadata, wherein the subset is related to one or more of the television programs scheduled for broadcast (0188-0192; Azami discloses a user-side computer can access arbitrary one among the MPEG-7 access units in the video database. The database holds a plurality of video content and MPEG-7 descriptions corresponding the video contents respectively. Using the broadest interpretation, the Examiner concludes that the requested video-segment information downloaded to the user-side computer is an updated version of the video-segment information/metadata.).

updating said subset of the lower structural elements stored in said client with a version later than a version of said subset of the lower structural elements stored in said

client without replacing the electronic document in its entirety (0150, lines 1-4; 0203-0205 Azami discloses the upper-rank information and the lower-ranked information can be transmitted separately. Therefore Azami teaches the concept of receiving updated version of said element and without replacing the electronic document in its entirety.).

Azami does not disclose expressly *wherein said later version of the subset of the lower structural elements is received in combination with the upper structural element and is identified by an element identification including an element version from said provider, wherein said element version comprises date information and/or time information.*

Reed teaches *wherein said later version of the subset of the lower structural elements is received in combination with the upper structural element and is identified by an element identification including an element version from said provider, wherein said element version comprises date information and/or time information* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to independent claim 47, Azami discloses *a method implemented by an apparatus for processing a response to a request for updating an electronic document describing metadata related to broadcasting a plurality of television programs, the electronic document having a hierarchical structure that includes an upper structural element and a plurality of lower structural elements located below the upper structural element in the hierarchical structure to describe broadcast information and content information for each of the television programs, wherein each element is based on XML and, stored in a client and the request for updating the electronic document requests an updated version of a subset of the lower structural elements, the method comprising* (0004-0008; 0087-0092; 0097; 0211; Fig. 1; Fig. 25; Azami discloses a MPEG-7 description document which uses XML. The MPEG-7 description is divided into upper-rank structured metadata and lower-rank structure metadata respectively. Azami further discloses division, store and transmission procedures of the audio-visual contents on a channel of digital television broadcast, which includes a computer which operates in accordance with a control program. Azami also disclose the upper-rank MPEG-7 description with a plurality of lower-ranks MPEG-7 descriptions, thus the XML electronic document having a hierarchical structure.):

updating said subset of the lower structural elements stored in said client with the updated version of said subset of the lower structural elements without replacing the electronic document in its entirety (0150, lines 1-4; 0203-0205 Azami discloses the upper-rank information and the lower-ranked information can be transmitted separately. Therefore Azami teaches the concept of receiving updated version of said element and without replacing the electronic document in its entirety.).

Azami does not disclose expressly *wherein said updated version of the subset of the lower structural elements is received in combination with the upper structural element and is identified by an element identification including an element version, wherein said element version comprises date information and/or time information.*

Reed teaches *wherein said updated version of the subset of the lower structural elements is received in combination with the upper structural element and is identified by an element identification including an element version, wherein said element version comprises date information and/or time information* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 48, Azami disclose the *method of claim47, further comprising;*

receiving an update to the electronic document in response to the request, the received update including the upper structural element (0004-0008; 0087-0092; 0097; 0107; Fig. 1; Fig. 25; Azami discloses receiving access units from the store system or the transmission system. Therefore Azami discloses a document receiving device coupled to the document storing device. Azami also discloses generally, there is a plurality of lower-ranked MPEG-7 description to be connected with an upper-ranked MPEG description stored in the Description of an access unit, thus the XML electronic document having a hierarchical structure. Azami further disclose a Fragment Location element which contains "attribute content". Using the broadest reasonable interpretation, the Examiner concludes the "content attribute" to be analogous to information within the electronic document, which could include but not be limited to the document version value.).

Azami does not disclose expressly *said updated version of said subset of the lower structural elements identified by said element identification and said element version from a provider.*

Reed teaches *said updated version of said subset of the lower structural elements identified by said element identification and said element version from a provider* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 49, Azami does not disclose expressly *the method of claim 47, wherein said element version includes date and time information according to when said metadata in the subset of the lower structural elements were updated.*

Reed teaches *wherein said element version includes date and time information according to when said metadata of the element were updated* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the

date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 50, Azami does not disclose expressly *the method of claim 49, wherein said element version includes date and time information according to when said metadata in the subset of the lower structural elements were changed.*

Reed teaches *wherein said element version includes date and time information according to when said metadata of the element were changed* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of

ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 51, Azami does not disclose expressly *the method of claim47, wherein said request comprises a selected version of said subset of the lower structural elements, and wherein said received updated version of said subset of the lower structural elements is later than said selected version.*

However, Reed *wherein said request comprises a selected version of said element, and wherein said received updated version of said element is later than said selected version* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. It has been established and is well known in the art that an updated element version is typically later than an element version of the current version).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version

value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 52, Azami discloses *the method of claim 47, wherein when said subset of the lower structural elements is changed, a version value for each of the lower structure is updated and the updated version value is reflected in a version value of said upper structural element* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata, thus the lower-ranked structure updated version value is reflected in a version value of said upper structure.).

In regards to dependent claim 53, Azami discloses *the method of claim 52, wherein a largest value among the version values for the lower structural elements is used as the version value of the upper structural element* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata. Thus the type of the content of the lower element is included in the upper element version value, as well as the largest value of the version values of the lower structures.).

In regards to dependent claim 54, Azami discloses *the method of claim 53, wherein a type of at least one of the updated lower structural elements is included in the version value of the upper structural element* (0089; 0092; Azami discloses the lower-

ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata. Thus the type of the content of the lower element is included in the upper element version value.).

In regards to dependent claim 55, Azami discloses *the method of claim 47, wherein said element version is defined by a syntax of said electronic document, and wherein said syntax is XML schema* (0004-0006; Azami discloses an XML schema.).

In regards to dependent claim 56, Azami discloses *the method of claim 47, wherein said metadata includes at least one member from the group of title, synopsis, review, and casting for one or more of television programs* (0199; Azami discloses structured metadata representing an electronic program guide including, which includes broadcasting programs titles, broadcasting dates, broadcasting channels and broadcasting programs outlines.).

In regards to independent claim 58, Azami discloses *for a method implemented by an apparatus for updating a portion of an electronic document describing metadata related to broadcasting a plurality of television programs, the electronic document having a hierarchical structure that includes an upper structural element and a plurality of lower structural elements located below the upper structural element in the hierarchical structure to describe broadcast information and content information for each of the television programs, wherein each element is based on XML*

and, stored in a client, the method comprising (0004-0008; 0087-0092; 0097; 0211; Fig. 1; Fig. 25; Azami discloses a MPEG-7 description document which uses XML. The MPEG-7 description is divided into upper-rank structured metadata and lower-rank structure metadata respectively. Azami further discloses division, store and transmission procedures of the audio-visual contents on a channel of digital television broadcast, which includes a computer which operates in accordance with a control program. Azami also disclose the upper-rank MPEG-7 description with a plurality of lower-ranks MPEG-7 descriptions, thus the XML electronic document having a hierarchical structure.):

receiving a request from a client for t-he an updated version of a subset of said lower structural elements of the electronic document describing metadata, wherein the subset is related to one or more of the television programs scheduled for broadcast (0188-0192; Azami discloses a user-side computer can access arbitrary one among the MPEG-7 access units in the video database. The database holds a plurality of video content and MPEG-7 descriptions corresponding the video contents respectively. Using the broadest interpretation, the Examiner concludes that the requested video-segment information downloaded to the user-side computer is an updated version of the video-segment information/metadata.).

Azami does not disclose expressly *determining whether a provider has a capability of handling said request for the updated version;*

supplying an update to the electronic document in response to the request, the supplied update including the upper structural element and said updated version of said subset of the lower structural elements in accordance with a determined result, wherein said updated version is identified by an element identification including an element version, wherein said element version comprises date information and/or time information.

However, Reed teaches *determining whether a provider has a capability of handling said requests for the updated version* (col. 39, lines 20-44; col. 59, lines 51-66; Reed teaches referring to the date/time of the object to determine if there has been a change within the object. Reed also teaches the version value of the updated object is compared with the version of the most recent version stored in the database.).

supplying an update to the electronic document in response to the request, the supplied update including the upper structural element and said updated version of said subset of the lower structural elements in accordance with a determined result, wherein said updated version is identified by an element identification including an element version, wherein said element version comprises date information and/or time information (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are

typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 59, Azami does not disclose expressly *the method of claim 58, wherein said request for said updated version of said subset of the lower structural elements identifies said subset of the lower structural elements using element identification and a current element version.*

Reed teaches *wherein said request for said updated version of said subset of the lower structural elements identifies said subset of the lower structural elements using element identification and a current element version* (col. 39, lines 20-44; Reed teaches the version value of the updated object is compared with the version of the most recent version stored in the database.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 60, Azami does not expressly disclose *the method of claim 58, further comprising:*

identifying a version of said subset of the lower structural elements later than a requested version of said subset of the lower structural elements in said provider as said updated version of said subset of the lower structural elements.

Reed teaches *identifying a version of said subset of the lower structural elements later than a requested version of said subset of the lower structural elements in said provider as said updated version of said subset of the lower structural elements* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. It has been established and is well known in the art that an *updated element version is typically later than an element version of the current version*).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 61, Azami does not expressly disclose *the method of claim 58, wherein said element version includes date and time information according to when said metadata in the subset of the lower structural elements were updated.*

Reed teaches *wherein said element version includes date and time information according to when said metadata in the subset of the lower structural elements were updated* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 62, Azami does not expressly disclose *the method of claim 61, wherein said element version includes date and time information according to when said metadata in the subset of the lower structural element were changed.*

However, Reed teaches *wherein said element version includes date and time information according to when said metadata in the subset of the lower structural element were changed* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is

changed. The version value is determined by the date and time of the most recent existing communication object version. It has been established and is well known in the art that an updated element version is typically later than an element version of the current version).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 63, Azami discloses *the method of claim 58, wherein when said subset of the lower structural elements is changed, a version value for each of the lower structure is updated and the updated version value is reflected in a version value of said upper structural element* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata, thus the lower-ranked structure updated version value is reflected in a version value of said upper structure.).

In regards to dependent claim 64, Azami discloses *the method of claim 63, wherein a largest value among the version values for the lower structural elements is used as the version value of the upper structural element* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata. Thus the type of the content of the

lower element is included in the upper element version value, as well as the largest value of the version values of the lower structures.).

In regards to dependent claim 65, Azami discloses *the method of claim 64, wherein a type of at least one of the updated lower structural elements is included in the version value of the upper structural element* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata. Thus the type of the content of the lower element is included in the upper element version value.).

In regards to dependent claim 66, Azami discloses *the method of claim 58, wherein said element version is defined by a syntax of said electronic document* (0004-0006; 0093).

In regards to dependent claim 67, Azami discloses *the method of claim 66, wherein said syntax is XML schema* (0004-0006; Azami discloses an XML schema.).

In regards to dependent claim 68, Azami discloses *the method of claim 67, wherein said metadata includes at least one member from the group of title, synopsis, review, and casting for one or more of television programs* (0199; Azami discloses structured metadata representing an electronic program guide including, which includes

broadcasting programs titles, broadcasting dates, broadcasting channels and broadcasting programs outlines.).

In regards to independent claim 69, Azami discloses *a method implemented by an apparatus for replying to a request for updating an electronic document describing metadata related to broadcasting a plurality of television programs, the electronic document having a hierarchical structure that includes an upper element and a plurality of lower structural elements located below the upper structural element in the hierarchical structure to describe broadcast information and content information for each of the television programs, wherein each element is based on XML and stored in a client, the method comprising* (0004-0008; 0087-0092; 0097; 0211; Fig. 1; Fig. 25; Azami discloses a MPEG-7 description document which uses XML. The MPEG-7 description is divided into upper-rank structured metadata and lower-rank structure metadata respectively. Azami further discloses division, store and transmission procedures of the audio-visual contents on a channel of digital television broadcast, which includes a computer which operates in accordance with a control program. Azami also disclose the upper-rank MPEG-7 description with a plurality of lower-ranks MPEG-7 descriptions, thus the XML electronic document having a hierarchical structure.):

supplying said client with an update to the electronic document in response to the request, the supplied update including the upper structural element and an updated version of a subset of said lower structural elements of the electronic document describing metadata, wherein the subset is related to one or more of the television

programs scheduled for broadcast, (0188-0192; Azami discloses a user-side computer can access arbitrary one among the MPEG-7 access units in the video database. The database holds a plurality of video content and MPEG-7 descriptions corresponding the video contents respectively. Using the broadest interpretation, the Examiner concludes that the requested video-segment information downloaded to the user-side computer is an updated version of the video-segment information/metadata.).

Azami does not disclose expressly *wherein the updated version is identified by an element identification including an element version, wherein said element version comprises date information and/or time information.*

Reed teaches *wherein the updated version is identified by an element identification including an element version, wherein said element version comprises date information and/or time information* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to independent claim 70, Azami discloses *a method implemented by an apparatus for managing an electronic document describing metadata related to broadcasting a plurality of television programs, the electronic document having a hierarchical structure that includes an upper structural element and a plurality of lower structural elements located below the upper structural element in the hierarchical structure to describe broadcast information and content information for each of the television programs, wherein each element is based on XML and stored in a client, the method comprising* (0004-0008; 0087-0092; 0097; 0211; Fig. 1; Fig. 25; Azami discloses a MPEG-7 description document which uses XML. The MPEG-7 description is divided into upper-rank structured metadata and lower-rank structure metadata respectively. Azami further discloses division, store and transmission procedures of the audio-visual contents on a channel of digital television broadcast, which includes a computer which operates in accordance with a control program. Azami also disclose the upper-rank MPEG-7 description with a plurality of lower-ranks MPEG-7 descriptions, thus the XML electronic document having a hierarchical structure.):

transmitting to the client an update to the electronic document, the transmitted update including the upper structural element and an updated version of said subset of

the lower structural elements, wherein said updated version is identified by an element identification including the version information for the subset of the lower structural elements (0004-0008; 0087-0092; 0097; 0107; Fig. 1; Fig. 25; Azami discloses receiving access units from the store system or the transmission system. Therefore Azami discloses a document receiving device coupled to the document storing device. Azami also discloses generally, there is a plurality of lower-ranked MPEG-7 description to be connected with an upper-ranked MPEG description stored in the Description of an access unit, thus the XML electronic document having a hierarchical structure. Azami further disclose a Fragment Location element which contains "attribute content". Using the broadest reasonable interpretation, the Examiner concludes the "content attribute" to be analogous to information within the electronic document, which could include but not be limited to the document version value.).

Azami does not disclose expressly *maintaining a version information for each of said lower structural elements of the electronic document describing metadata related to the television programs, wherein said version information comprises date information and/or time information;*

Reed teaches *receiving maintaining a version information for each of said lower structural elements of the electronic document describing metadata related to the television programs, wherein said version information comprises date information and/or time information* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to

coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 72, Azami does not disclose expressly *the method of claim 70, wherein the version information includes date and time information according to when said metadata in the subset of said lower structural elements were updated.*

Reed teaches *wherein the version information includes date and time information according to when said metadata in the subset of said lower structural elements were updated* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time

information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 73, Azami does not disclose expressly *the method of claim 72, wherein the version information includes date and time information according to when said metadata in the subset of the lower structural elements were changed.*

Reed teaches *wherein the version information includes date and time information according to when said metadata in the subset of the lower structural elements were changed* (col.8, lines 12-14; col. 20, lines 17-29; The version value is used to coordinate updates each time an element within the communication object is changed. The version value is determined by the date and time of the most recent existing communication object version. Thus, Reed teaches/suggests using the date information and time information of the document contents as the version value. It has been established and is well known to one of ordinary skill in the art that date/time stamps are typically used to distinguish different versions of particular elements, objects, documents, etc.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Azami with Reed for the benefit of utilizing a version value is to coordinate updates within an object/document each time an element within the object/document is changed (col. 20, lines 24-25).

In regards to dependent claim 74, Azami *discloses the method of claim 70, further comprising:*

receiving a request for the updated version of said subset of the lower structural elements (0188-0192; Azami discloses a user-side computer can access arbitrary one among the MPEG-7 access units in the video database. The database holds a plurality of video content and MPEG-7 descriptions corresponding the video contents respectively. Using the broadest interpretation, the Examiner concludes that the requested video-segment information downloaded to the user-side computer is an updated version of the video-segment information/metadata.).

In regards to dependent claim 75, Azami discloses *the method of claim 70, wherein when said subset of the lower structural structure of said elements is changed, a version value for each of the lower structural elements is updated and the updated version value is reflected in a version value of said upper structural element* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata, thus the lower-

ranked structure updated version value is reflected in a version value of said upper structure.)

In regards to dependent claim 76, Azami disclose *method of claim 75, wherein a largest value among the version values for the lower structural elements is used as the version value of the upper structural element* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata. Thus the type of the content of the lower element is included in the upper element version value, as well as the largest value of the version values of the lower structures.).

In regards to dependent claim 77, Azami discloses *the method of claim 76, wherein a type of at least one of the updated lower structural elements structure is included in the version value of the upper structural element structure* (0089; 0092; Azami discloses the lower-ranks structure metadata and the upper-ranked structured metadata are integrated into the original structured metadata. Thus the type of the content of the lower element is included in the upper element version value.).

In regards to dependent claim 78, Azami disclose *the method of claim 70, wherein said element version information is defined by a syntax of said electronic document* (0004-0006; Azami discloses an XML schema.).

In regards to dependent claim 79, Azami disclose *the method of claim 78, wherein said syntax is XML schema* (0004-0006; Azami discloses an XML schema.).

In regards to dependent claim 80, Azami discloses *method of claim 79, wherein said metadata includes at least one member from the group of title, synopsis, review, and casting for one or more of television programs* (0199; Azami discloses structured metadata representing an electronic program guide including, which includes broadcasting programs titles, broadcasting dates, broadcasting channels and broadcasting programs outlines.).

Note

8. It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

Response to Arguments

Applicant argues *the claim requires a hierarchical structure that includes an upper structural element and a plurality of lower structural elements located below the upper structural element in the hierarchical structure, and that each of the received updates includes the upper structural element and updated information for a subset of the plurality of lower structural elements. Thus, Azami fails to disclose updates including the claimed combination of the upper structural element and the updated subset of the lower structural elements* (Remarks, p.14).

The Examiner disagrees.

First of all, the Examiner can not find any disclosure or suggestion thereof within the specification of "*updates including the claimed combination of the upper structural element and the updated subset of the lower structural elements"* as argued by the Applicant. However, even if Applicant did disclose or suggest the subject matter mentioned above, the Examiner concludes that Azami does indeed teach such limitation. Azami teaches generally in the case where there is a plurality of Lower-Rank MPEG-7 descriptions to be connected to Upper-Rank MPEG-7 descriptions, there exist a Fragment Reference, which contains two child elements named "Connection Point" and "Fragment Location". The Fragment Location element has "attribute content". Using the broadest reasonable interpretation, the Examiner concludes the "content attribute" to be analogous to information within an electronic document. It has been established

the Upper-Rank description and Lower-Rank descriptions forms a hierarchical tree structure. Therefore whenever the content within the lower-rank element/sibling of the Fragment Location, of the Lower-Rank description, element is updated and transmitted to the Upper-Ranks element for reconstruction, the lower-rank does indeed transmits the "upper-structure", which is inherently a part of the tree structure of the Fragment Reference (0097-0098; 0107; 0117). Therefore using the broadest interpretation, the Examiner concludes Azami teaches updates including the claimed combination of the upper structural element and the updated subset of the lower structural elements.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James J. Debrow whose telephone number is 571-272-5768. The examiner can normally be reached on 8:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAMES DEBROW
EXAMINER
ART UNIT 2176

WILLIAM BASHORE
PRIMARY EXAMINER